

**AMENDMENTS**

In response to the Office Action dated 09/23/2004, please amend the above-identified application as follows:

**In the Claims:**

cancel claims 1-4.

(original) claim 5. A magnetic separation apparatus for separating magnetically responsive particles from a non-magnetic test medium in a non-magnetic container having an interior surface, the separator comprising:

magnetic means having a gap receiving the container, said magnetic means generating a magnetic field gradient within the container in which the magnetic field strength within the container is stronger in the test medium along the interior surface of the container than in the test medium more distant from the interior surface and is operative upon the magnetically responsive particles within the test medium to attract the magnetically responsive particles toward the interior surface of the container and cause such particles to be attracted to the interior surface; and

a non-magnetic plunger operable to be displaced into said container to provide an annular space within said interior surface into which said magnetic test medium may pass.

(original) claim 6. The magnetic separation apparatus of claim 5 wherein said container comprises:

an elongated hollow cylindrical passage having an inlet for introducing the magnetic test medium into one end of the passage and an outlet for discharging test medium from the opposite end of the passage,

said interior surface being located between said inlet and said outlet.

(original) claim 7. The magnetic separation apparatus of claim 6 wherein said hollow cylindrical passage is configured for conducting a flow of fluid therealong

in a direction parallel to the longitudinal axis of the passage from said inlet to said outlet.

(original) claim 8. The magnetic separation apparatus of claim 6 wherein said gap of the magnetic means comprises a plurality of pole faces each disposed at an operative position exteriorly of said container adjacent said interior surface, said pole faces being disposed circumferentially of said cylindrical axis of the passage,

At least one of said pole faces being mounted for displacement radially outward from the axis of the passage to afford reduction of the magnetic field strength within the container, and thereby afford reduction of the attraction of said particles to said interior surface adjacent the operative position of said at least one pole face.

(previously presented) claim 9. A magnetic separation apparatus for separating magnetically responsive particles from a non-magnetic test medium passing through a non-magnetic container having an interior surface, the separator comprising:

magnetic means generating a magnetic field gradient within the container in which the magnetic field strength within the container is stronger in the test medium along the interior surface of the container than in the test medium more distant from the interior surface and is operative upon the magnetically responsive particles within the test medium to attract the magnetically responsive particles toward the interior surface of the container and cause such particles to be adhered to the interior surface, and

a non-magnetic deflector comprising a plunger having an outside configuration similar to said interior surface and dimensions less than the inside dimensions of said interior surface to provide an elongated annular space along the length of the interior surface and operable to deflect magnetically responsive particles into said narrow annular space immediately adjoining said interior surface along which said magnetic test medium passes.

(original) claim 10. A magnetic separation apparatus according to claim 9 wherein said plunger is operable to be displaced into said container to confront said interior surface and spaced therefrom to form said annular space into which said magnetic test medium may pass.

(previously canceled) claim 11.

(original) claim 12. A magnetic separation apparatus according to claim 9 wherein said container interior surface is carried by said plunger, and said magnetic means is mounted in said plunger and comprises pole faces directed toward said interior surface.

(original) claim 13. A magnetic separation apparatus according to claim 9 wherein said magnetic means has a gap with pole faces directed toward said gap, said container being positioned in said gap.

(original) claim 14. The magnetic separation apparatus of claim 13 wherein said magnetic means comprises each disposed exteriorly of said container adjacent said interior surface, the number of said pole faces being in the range of 8 to 64 faces disposed circumferentially of the axis of the passage.

(original) claim 15. The magnetic separation apparatus of claim 14 wherein the centers of the pole faces are spaced apart by a distance not less than the distance between the faces and said internal surface.

(original) claim 16. The magnetic separation apparatus of claim 9 in combination with a container, wherein said container has thin wall section providing said interior surface, said thin wall section having a wall thickness in the range of 0.635 mm to 0.100 mm.

(original) claim 17. The magnetic separation apparatus of claim 16 wherein said wall thickness is approximately 0.100 mm.

previously canceled claims 18 to 25.

(cancel) claim 26.

claim 27. A magnetic separation apparatus according to claim 10 wherein said annular space is optimized to facilitate test reactions and collection of the magnetically responsive particles within said annular space.